

# Notice of Allowability

Application No.

10/008,494

Examiner

Chirag G. Shah

Applicant(s)

LEUNG ET AL.

Art Unit

2616

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/9/07.
2. ☒ The allowed claim(s) is/are 2-25 and 27-55.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

  
CHIRAG G. SHAH

PRIMARY PATENT EXAMINER

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **Reasons For Allowance**

1. The following is an examiner's statement of reasons for allowance:

Regarding claim 7, prior art fails to explicitly disclose in a home agent, a method of maintaining mobile IP operation, the method comprising determining whether one or more Home Agents other than the Home Agent are in the virtual group prior to sending the multicast message in combination with other limitations set forth in the respective claim.

Regarding claim 8, prior art fails to explicitly disclose whether an acknowledgement to the multicast message has been received from another Home Agent in the virtual router group; and when it is determined that an acknowledgement has not been received from the Home Agent in the virtual router group, retransmitting a message to the Home Agent notifying the Home Agent of the registration in combination with other limitations set forth in the respective claim.

Regarding claim 9, prior art fails to explicitly disclose prior to registering a mobile node, sending a multicast mobility binding table request of the virtual router group indicating that bindings present in a mobility binding table maintained by one or more members of the virtual router group are requested, in combination with other limitations set forth in the respective claim.

Regarding claim 14, prior art fails to explicitly disclose receiving a multicast mobility binding table request from another Home Agent in the virtual router group, the multicast mobility binding table request being addressed to the virtual router group and indicating that bindings present in a mobility binding table maintained by members of the virtual router group are requested in combination with other limitations set forth in the respective claim.

Regarding claim 31, prior art fails to explicitly disclose in a home agent, the home agent being a member of the redundancy group including one or more home agents, a method of providing mobile IP redundancy comprising receiving one or more reply messages including one or more Home Agent identifiers identifying Home Agents in the redundancy group and updating a list of Home Agents in the redundancy group such that the list includes the Home Agent identifiers in combination with other limitations set forth in the respective claim.

Regarding claim 32, prior art fails to explicitly disclose in a home agent, the home agent being a member of the redundancy group including one or more home agents, a method of providing mobile IP redundancy comprising determining whether one or more Home Agents other than Home Agent are in the virtual router group prior to sending the multicast mobility binding table request in combination with other limitations set forth in the respective claim.

Regarding claim 33, prior art fails to explicitly disclose in a home agent, the home agent being a member of the redundancy group including one or more home agents, a method of providing mobile IP redundancy comprising receiving a binding table update including a binding associated with a mobile node that has registered with another home agent and updating the mobility binding table maintained by the Home Agent to include the binding in combination with other limitations set forth in the respective claim.

Regarding claim 38, prior art fails to explicitly disclose in a home agent, the home agent being a member of the redundancy group including one or more home agents, a method of providing mobile IP redundancy comprising when it is determined that a binding exists in the mobility binding table maintained by the Home Agent for the specified mobile node, removing the binding from the mobility binding table and when it is determined that a binding does not

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exist in the mobility binding table maintained by the Home Agent for the specified mobile node, creating an entry in the mobility binding table for the specified mobile node and marking the entry as deleted in combination with other limitations set forth in the respective claim.

Regarding claim 42, prior art fails to explicitly disclose in a home agent, the home agent being a member of the redundancy group including one or more home agents, a method of providing mobile IP redundancy comprising receiving a multicast mobility binding table request from another Home Agent in the virtual router group, the multicast mobility binding table request being addressed to the virtual router group and indicating that bindings present in a mobility binding table maintained by members of the virtual router group are requested in combination with other limitations set forth in the respective claim.

Regarding claim 50, prior art fails to explicitly disclose a computer-readable medium storing thereon computer-readable instructions executed by a computer for sending a multicast mobility binding table request to the virtual router group prior to registering a mobile node, the multicast mobility binding table request indicating that bindings present in a mobility binding table maintained by one or more members of the virtual router group are requested in combination with other limitations set forth in the respective claim.

Regarding claim 51, prior art fails to explicitly disclose an apparatus for sending a multicast mobility binding table request to the virtual router group prior to registering a mobile node, the multicast mobility binding table request indicating that bindings present in a mobility binding table maintained by one or more members of the virtual router group are requested in combination with other limitations set forth in the respective claim.

Regarding claim 52, prior art fails to explicitly disclose an apparatus having the means for sending a multicast mobility binding table request to the virtual router group prior to registering a mobile node, the multicast mobility binding table request indicating that bindings present in a mobility binding table maintained by one or more members of the virtual router group are requested in combination with other limitations set forth in the respective claim.

Regarding claim 53, prior art fails to explicitly disclose a computer-readable medium storing thereon computer-readable instructions executed by a computer having instructions for updating the mobility binding table maintained by the Home Agent to include a binding associated with a mobile node that has registered with another Home Agent, the binding being received via a binding table update in combination with other limitations set forth in the respective claim.

Regarding claim 54, prior art fails to explicitly disclose an apparatus for receiving a binding table update including a binding associated with a mobile node that has registered with another Home Agent and updating the mobility binding table maintained by the Home Agent to include the binding in combination with other limitations set forth in the respective claim.

Regarding claim 55, prior art fails to explicitly disclose an apparatus having the means for receiving a binding table update including a binding associated with a mobile node that has registered with another Home Agent and updating the mobility binding table maintained by the Home Agent to include the binding in combination with other limitations set forth in the respective claim.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

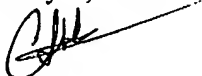
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7682. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cgs

January 9, 2007



Chirag G. Shah  
Primary Examiner, 2616

CHIRAG G. SHAH  
PRIMARY PATENT EXAMINER